

WHAT IS CLAIMED IS:

1. An optical cable, comprising:

a polymer optical conductor comprising a fiber core;

a single-layer or multi-layer fiber cladding;

an inner external layer which adheres to said fiber cladding with a peel force of at least 50 N and comprises a first molding composition which comprises a first polyamide; and

an outer external layer which adheres to said inner external layer with a peel force of not more than 30 N;

wherein said first polyamide is selected from the group consisting of a) PA 11, b) PA 12, c) PA 1012, d) PA 1212, e) a copolyamide of at least two of PA 11, PA 12, PA 1012 and PA 1212, said copolyamide containing not more than 30 mol% of a comonomer, and f) mixtures thereof;

wherein said first polyamide contains at least 50 $\mu\text{eq/g}$ of amino end groups;

wherein said first molding composition has a zero-shear viscosity of from 400 to 6000 Pas, measured according to ASTM D4440 at 220°C; and

wherein said outer external layer comprises a second molding composition which comprises the following i)-iii):

i) from 20 to 95% by weight of a second polyamide selected from the group consisting of a) PA 11, b) PA 12, c) PA 1012, d) PA 1212, e) a copolyamide of at least two of PA 11, PA 12, PA 1012 and PA 1212, said copolyamide containing not more than 30 mol% of a comonomer, f) a polyetheramide of at least one of a)-e), and g) mixtures thereof,

ii) from 5 to 45% by weight of a flame retardant, and

iii) from 0 to 60% by weight of an impact modifier,

wherein an amount of i), ii) and iii) is based on a total amount of i)+ ii)+iii).

2. The optical cable as claimed in claim 1, wherein said first molding composition of said inner external layer has a zero-shear viscosity of from 500 to 3000 Pas.

3. The optical cable as claimed in claim 1, wherein said first molding composition of said inner external layer has a zero-shear viscosity of from 600 to 2000 Pas.

4. The optical cable as claimed in claim 1, wherein said first molding composition of said inner external layer has a zero-shear viscosity of from 700 to 1200 Pas.

5. The optical cable as claimed in claim 1, wherein said fiber core comprises PMMA.

6. The optical cable as claimed in claim 1, wherein said fiber cladding comprises polyvinylidene fluoride.

7. The optical cable as claimed in claim 1, wherein said first molding composition of said inner external layer has been colored black.

8. The optical cable as claimed in claim 1, wherein an optical attenuation of said fiber core is from 70 to 100 db/km at $\lambda = 570$ nm.

9. The optical cable as claimed in claim 1, wherein an optical attenuation of said fiber core is from 125 to 150 db/km at $\lambda = 650$ nm.

10. The optical cable as claimed in claim 1, wherein said fiber cladding comprises a fluorinated polymer.

11. The optical cable as claimed in claim 1, wherein said cladding material comprises polyvinylidene fluoride, optionally mixed with one of PMMA, a polyglutarimide, or an acrylate copolymer.

12. The optical cable as claimed in claim 1, wherein said inner external layer has a thickness of from 200 to 300 μm .

13. The optical cable as claimed in claim 1, wherein said outer external layer has a thickness of from 300 to 600 μm .

14. The optical cable as claimed in claim 1, wherein said first polyamide contains not more than 30 $\mu\text{eq/g}$ of carboxy end groups.
15. The optical cable as claimed in claim 1, wherein said first molding composition further comprises an additive selected from the group consisting of UV stabilizers, heat stabilizers, crystallization accelerators, pigments, and lubricants.
16. The optical cable as claimed in claim 1, further comprising up to 20% by weight of a synergist.
17. The optical cable as claimed in claim 16, wherein said synergist is a compound of cadmium, of zinc, of aluminum, of silver, of iron, of copper, of antimony, of tin, of magnesium, of manganese, of vanadium, or of boron.
18. The optical cable as claimed in claim 1, wherein said second molding composition comprises a release agent.
19. The optical cable as claimed in claim 1, wherein said release agent is selected from the group consisting of alkyl stearates, calcium stearate, fatty amides, montanic esters, wax oxidates, and siloxane copolymers.